

## MEDICAL DIAGNOSTIC ULTRASOUND INSTRUMENT WITH ECG MODULE, AUTHORIZATION MECHANISM AND METHODS OF USE

### ABSTRACT OF THE DISCLOSURE

A handheld ultrasound instrument is disclosed having enhanced diagnostic modes including pulse/continuous wave Doppler, time-motion analysis, spectral analysis and tissue harmonic imaging. An external electrocardiograph (ECG) recording unit is also disclosed. The ECG unit is adaptable to be used with the handheld ultrasound instrument to provide for ECG monitoring while performing an ultrasound scan in B-mode, Doppler, color Doppler, M-mode, and CW/PW mode. The enhanced handheld ultrasound instrument further includes a security mechanism allowing any combination of the diagnostic modes to be enabled by the manufacturer, and later to enable or disable any one or group of the diagnostic modes. The invention also discloses a method for a manufacturer to maintain a database of handheld ultrasound instrument capabilities after the instruments enter the stream of commerce.

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